ON APPROXIMATION FOR FUNCTIONS OF
TWO VARIABLES ON A TRIANGULAR DOMAIN

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ABSTRACT. The problem of approximation of continuous functions of two variables by Bernstein-Chlodowsky polynomials on a triangular domain is studied. Moreover, the problem of weighted approximations of continuous functions of two variables by a sequences of linear positive operators is discussed.

1. Introduction. The aim of this paper is to study the problem of the approximation of functions of two variables by means of Bernstein-Chlodowsky polynomials in a triangular domain.

There are many investigations devoted to the problem of approximating continuous functions by classical Bernstein polynomials, as well as by two-dimensional Bernstein polynomials and their generalizations.

We refer to papers [**6**–**8**] and to monograph [**1**].

On the other hand, Bernstein-Chlodowsky polynomials have not been studied so well and we don't know of papers devoted to the two-dimensional case.

Some generalization of these polynomials in the one-dimensional case may be found in [**4, 5**].

We will prove theorems on the weighted approximation of continuous functions by Bernstein-Chlodowsky polynomials of two variables.

Also, some problems of weighted approximation of functions of two variables by linear positive operators are discussed at the end of this paper, as an analog of the one-dimensional results, established in [**2, 3**].